

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VII

901 NORTH FIFTH STREET
KANSAS CITY, KANSAS 66101

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ENVIRONMENTAL PROTECTION
AGENCY-REGION VII
REGIONAL HEARING CLERK

IN THE MATTER OF:

Abbott Laboratories
Wichita, Kansas 67277

RESPONDENT

Proceeding under
Section 3008(h) of the
Resource Conservation and
Recovery Act, as amended,
42 U.S.C. § 6928(h).

Docket No.

RCRA-07-2002-0130
Administrative Order
On Consent

ADMINISTRATIVE ORDER ON CONSENT

432388



RCRA RECORDS

A014

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I. JURISDICTION

1. This Administrative Order on Consent ("Order") is issued pursuant to the authority vested in the Administrator of the United States Environmental Protection Agency ("EPA") by Section 3008(h) of the Solid Waste Disposal Act, commonly referred to as the Resource Conservation and Recovery Act of 1976 ("RCRA"), as amended by the Hazardous and Solid Waste Amendments of 1984, 42 U.S.C. § 6928(h). The authority vested in the Administrator to issue orders under § 3008(h) of RCRA has been delegated to the Regional Administrators by EPA Delegation Nos. 8-31 and 8-32 dated March 6, 1986, and has been further delegated by the Regional Administrator for Region VII, by EPA Delegation Nos. R7-8-31 and R7-8-32, January 1, 1995 to the Division Director of Air, RCRA, Toxics Division.

2. This Order is issued to Abbott Laboratories, Respondent, the owner/operator of the Abbott Laboratories facility at 6765 South Ridge Road in Wichita, Kansas ("the Facility").

3. Respondent consents to and agrees not to contest EPA's jurisdiction to issue this Order or to enforce its terms. Further, Respondent will not contest EPA's jurisdiction to: compel compliance with this Order in any subsequent enforcement proceedings, either administrative or judicial; require Respondent's full compliance with the terms of this Order; or impose sanctions for violations of this Order.

II. DEFINITIONS

4. Unless otherwise expressly provided herein, terms used in this Order which are defined in RCRA or in regulations promulgated under RCRA shall have the definitions given to them in RCRA or in such regulations.

a. Acceptable in the phrase "In a manner acceptable to EPA..." shall mean that submittals or completed work meet the terms and conditions of this Order, attachments, scopes of work, approved work plans and/or EPA's written comments and guidance documents.

b. Additional Work shall mean any activity or requirement that is not expressly covered by this Order or its attachments but is determined by EPA to be necessary to fulfill the purposes of this Order as presented in Section III (Statement of Purpose).

c. Administrative Record shall mean the record compiled and maintained by EPA supporting this Order. For information on the contents of the Administrative Record see "Guidance on Administrative Records for RCRA 3008(h) Actions", OSWER Directive 9940.4, July 6, 1989.

d. CERCLA shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601, et seq.

e. Comply or compliance may be used interchangeably and shall mean completion of Work required by this Order of a

quality approvable by EPA and in the manner and time specified in this Order or any modification thereof, its attachments or any modification thereof, or written EPA directives. Respondent must meet both the quality and timeliness components of a particular requirement to be considered in compliance with the terms and conditions of this Order.

f. Contaminant shall mean O-toluidine (2-Methyl Aniline).

g. Contractor shall include any subcontractor, consultant or laboratory retained to conduct or monitor any portion of the work performed pursuant to this Order.

h. Corrective measures shall mean those measures or actions necessary to control, prevent, or mitigate the release or potential release of hazardous waste or hazardous constituents into the environment.

i. Corrective Measures Implementation or CMI shall mean those activities necessary to initiate, complete, monitor, and maintain the remedies EPA has selected or may select to protect human health and/or the environment from the release or potential release of hazardous wastes, or hazardous constituents, into the environment from the Facility. The CMI requirements are detailed in the CMI Scope of Work included as Attachment IV.

j. Corrective Measures Study or CMS shall mean the CMS submitted by Respondent in June 2000.

k. Data Quality Objectives shall mean the qualitative or quantitative statements, the application of which is designed to ensure that data of known and appropriate quality are obtained.

l. Day shall mean a calendar day unless expressly stated to be a business day. Business day shall mean a day other than a Saturday, Sunday, or Federal Holiday. In computing any period of time under this Order, where the last day would fall on a Saturday, Sunday, or Federal Holiday, the period shall run until the end of the next business day.

m. EPA or U.S. EPA shall mean the United States Environmental Protection Agency, and any successor Departments or Agencies of the United States.

n. Facility shall mean all contiguous property under the control of Respondent located at 6765 South Ridge Road in Wichita, Kansas.

o. Hazardous Constituents shall mean those constituents listed in Appendix VIII to 40 C.F.R. Part 261 or any constituent identified in Appendix IX to 40 C.F.R. Part 264.

p. Hazardous Waste shall mean hazardous waste as defined in § 1004(5) of RCRA or 40 C.F.R. § 260.10. This term includes hazardous constituents as defined above.

q. RCRA Facility Investigation or RFI shall mean the RFI submitted on April 1, 1992.

r. Solid Waste Management Unit or SWMU shall mean any discernible unit at which solid wastes have been placed at any time irrespective of whether the unit was intended for the management of solid or hazardous waste. Such units include any area at a facility where solid wastes have been routinely and systematically released.

s. Scope of Work or SOW shall mean the outline of work Respondent must use to develop all work plans and reports required by this Order as set forth in this Order and Attachments. All SOW Attachments and modifications or amendments thereto, are incorporated into this Order and are an enforceable part of this Order.

t. Submittal shall include any work plan, report, progress report, or any other written document Respondent is required by this Order to send to EPA.

u. Violations of this Order shall mean those actions or omissions, failures or refusals to act by Respondent that result in a failure to meet the terms and conditions of this Order or its attachments.

v. Work or Obligation shall mean any activity Respondent must perform to comply with the requirements of this Order and its attachments.

w. Work plan shall mean the detailed plans prepared by Respondent to satisfy the requirements of the corresponding Scope

of Work. The requirements for each Work plan are presented in Section IX (Work to be Performed) and/or Attachment IV.

III. STATEMENT OF PURPOSE

5. In entering into this Order, the mutual objectives of EPA and Respondent are: to implement the corrective measure selected by EPA at the Facility and to perform any other activities necessary to correct or evaluate actual or potential threats to human health and/or the environment resulting from the release or potential release of hazardous waste or hazardous constituents at or from the Facility.

IV. PARTIES BOUND

6. This Order shall apply to and be binding upon EPA, Respondent and its officers, directors, employees, agents, successors and assigns, heirs, trustees, receivers, and upon all persons, including but not limited to contractors and consultants, acting on behalf of Respondent.

7. No change in ownership or corporate or partnership status relating to the Facility will in any way alter Respondent's responsibility under this Order. Any conveyance of title, easement, or other interest in the Facility, or a portion of the Facility, shall not affect Respondent's obligations under this Order. Respondent will be responsible for and liable for any failure to carry out all activities required of Respondent by the terms and conditions of the Order, regardless of Respondent's

use of employees, agents, contractors, or consultants to perform any such tasks.

8. Respondent shall provide a copy of this Order to all contractors, laboratories, and consultants retained to conduct or monitor any portion of the work performed pursuant to this Order within fourteen (14) days of the issuance of this Order or the retention of such person(s), whichever occurs later, and shall condition all such contracts on compliance with the terms of this Order.

9. Respondent shall give written notice of this Order to any successor in interest prior to transfer of ownership or operation of the Facility or a portion thereof and shall notify EPA in writing within ten (10) days prior to such transfer.

10. Respondent agrees to undertake all actions required by the terms and conditions of this Order, including any portions of this Order incorporated by reference. Respondent waives any rights to request a hearing on this matter pursuant to § 3008(b) of RCRA and 40 C.F.R. Part 24, and consents to the issuance of this Order without a hearing pursuant to § 3008(b) of RCRA as a Consent Order issued pursuant to § 3008(h) of RCRA.

V. FINDINGS OF FACT

11. Respondent is a corporation organized under the laws of the state of Illinois and is authorized to do business in the state of Kansas.

12. Respondent is the owner of a hazardous waste management facility located at 6765 South Ridge Road in Wichita, Kansas (Attachment I). Prior to the sale in 1985 of the operational portion of its facility described in Paragraph 17, Respondent produced amine based urethane catalysts and industrial amines used as intermediates in the production of textiles, rubber, plastics, adhesives and related industrial products.

13. On or about August 4, 1980, pursuant to Section 3010(a) of RCRA, 42 U.S.C. § 6930(a), Respondent notified EPA that it generated, treated, stored and/or disposed of the following hazardous wastes:

a. Hazardous wastes from non-specific sources as defined at 40 C.F.R. § 261.31:

F003

F005

b. Hazardous waste commercial chemical products as defined at 40 C.F.R. § 261.33:

P053

P069

U009

U012

U057

U074

U092

U110

U112

U123

U154

U159

U168

U194

U196

U220

c. Characteristic hazardous wastes as defined at 40 C.F.R. §§ 261.21 and 261.22:

D001

D002

Respondent received EPA identification number KSD007237746.

14. On or about November 7, 1980, pursuant to Section 3005 of RCRA, 42 U.S.C. § 6930, Respondent submitted its original Part A Permit Application for the container and tank-type storage and incineration of hazardous wastes.

15. Having submitted a timely notification and a Part A Permit Application, Respondent achieved interim status in accordance with Section 3005(e) of RCRA, 42 U.S.C. § 6930(e) on November 17, 1980. This was acknowledged by EPA on or about November 17, 1980.

16. Subsequent to November 17, 1980, Respondent made numerous revisions to its Part A Permit Application. On April 30, 1984, Respondent revised its application leaving the container storage area as the only treatment, storage or disposal activity subject to the interim status requirements of Section 3005(e) of RCRA.

17. On or about July 31, 1985, Respondent sold the operational portion of its property to Air Products and Chemicals, Inc. ("Air Products") and retained ownership of the hazardous waste container storage area and the evaporation pond, evaporation lagoon and injection well solid waste management units, described in Paragraph 19 below (see Attachment II). The retained property, which is legally described as set forth in Attachment III comprises the Facility that is the subject of this Order.

18. On or about March 3, 1986, as a result of the above described transfer to Air Products, Incorporated, Respondent

renotified EPA of its status as a hazardous waste generator and as a storage facility of hazardous waste identified as F003 and F005 as defined at 40 C.F.R. § 261.31, and D001 as defined at 40 C.F.R. § 261.21. Respondent received EPA identification number KSD981495567.

19. In addition to the hazardous waste container storage pad, other known solid waste management units (SWMUs) at the Facility include a drum storage pad, an evaporation pond, an evaporation lagoon and an underground injection control (UIC) well, (Attachment II), each of which is described below:

a. The drum storage pad (Attachment II) was constructed in the mid-1970's and closure was completed in 1986. The drum storage pad was a 70-foot by 65-foot concrete pad surrounded by an earthen ditch and dike and had a capacity of 2,184 55-gallon drums. The drum storage pad was used to store hazardous waste for a period of greater than 90 days until the wastes could be recycled or disposed at a permitted disposal facility. All drainage from the area led to a sump and pump collection system. Wastes stored there included spent toluene and methanol solvent wastes classified as F003 and F005 at 40 C.F.R. § 261.31, and ignitable and corrosive wastes classified as D001 and D002 at 40 C.F.R. §§ 261.21 and 261.22.

b. The solid waste evaporation lagoon was located in the southeast corner of the Facility immediately across the railroad tracks from the Air Products property (Attachment II).

The evaporation lagoon is approximately 8.25 million gallons.

The evaporation lagoon was constructed in 1980 and operated until 1986 to dispose of process waste water by evaporation with zero outfall. The evaporation lagoon was constructed with a clay liner and included a leachate collection system which drained to a sump on the north side of the lagoon. Leachate produced from the leachate collection system was pumped from the sump back to the lagoon. Waste constituents identified in the lagoon and/or its leachate, consist of amines, cyclohexylamine, dicyclohexylamine, acrylonitrile, benzene and toluene. In 1987, Respondent closed the lagoon by sampling the liquids, removing them and injecting them into the UIC well (see paragraph 19(d) below). Respondent then pushed in the sides and installed a two-foot clay cap. The leachate collection system, sump and pumps were left in-place to collect leachate which may remain in the unit or result from infiltration and percolation. Leachate collected from the lagoon is disposed of by injection in the UIC well described in paragraph 19(d) below.

c. The solid waste evaporation pond was located south of Respondent's former production facilities between the drum storage pad and the UIC well. The evaporation pond was constructed in 1960 and closure was completed in 1981. The evaporation pond was constructed with a clay liner and was approximately one acre in size. The evaporation pond was constructed to dispose of process waste waters by evaporation with

zero outfall. Waste constituents identified in the lagoon consist of amines, cyclohexylamine, dicyclohexylamine, N,N-dimethylcyclohexylamine, acrylonitrile and toluene. Total influent to the evaporation pond was approximately 28 gallons per minute. The evaporation pond was closed in 1981 after construction of the evaporation lagoon (see paragraph 19b above). The closure was accomplished by capping with an 18-inch clay cap and a 6-inch soil cover. An asphalt cap was added later to further reduce infiltration.

d. The solid waste UIC well (Kansas UIC Permit Number KS-01-173-001) is located south of the evaporation pond in the southeast corner of the Facility. The UIC well was constructed in 1981 to dispose of production waste water, leachate from the evaporation lagoon, and contaminated ground water from the ongoing remediation at the Facility. Injection from the UIC well occurs in the Arbuckle formation at depths between 3,978 and 4,646 feet. It has a gravity flow capacity of 250 to 350 gallons per minute. Injection at the UIC well occurs at a rate of 140 to 160 gallons per minute. The UIC well permit includes or included a concentration restriction of 12 mg/l for acrylonitrile.

20. A ground water monitoring well system has been installed at the Facility to define the vertical and horizontal extent of ground water contamination in the area of the evaporation pond and evaporation lagoon. The location of the ground water monitoring

wells are shown on Attachment II. The historical analytical results include the following:

Well #	Sampling Date	Constituent	Concentration
17	9/14/87	Cyclohexylamine	3450 ppb
17	9/14/87	Dicyclohexylamine	6390 ppb
17	2/6/87	Pyridine	380 ppb
101s	9/14/87	Acrylonitrile	20 ppb
101s	9/14/87	Aniline	3790 ppb
101s	9/14/87	Cyclohexylamine	7670 ppb
101s	9/14/87	Dicyclohexylamine	160000 ppb
101s	9/6/88	Acrylonitrile	42 ppb
101s	9/6/88	Aniline	3670 ppb
101-1	3/11/86	Acrylonitrile	42 ppb
101-1	9/4/85	Aniline	6300 ppb
101-1	3/11/86	Cyclohexylamine	20400 ppb
101-1	9/14/87	Dicyclohexylamine	52800 ppb
101-1	3/11/86	Pyridine	790 ppb

21. On September 6, 1988, samples from monitoring wells were collected by KDHE from ground water monitoring wells 10, 16s, 101s, and 101d. The results include the following:

<u>Well #</u>	<u>Sampling Date</u>	<u>Constituent</u>	<u>Concentration</u>	<u>MCL</u>
101s	9/6/88	Benzene	9 ppb	5 ppb
10	9/6/88	Benzene	30 ppb	5 ppb
16s	9/6/88	Benzene	24 ppb	5 ppb

22. Pursuant to an Administrative Order on Consent that Abbott Laboratories entered into with EPA on July 16, 1990, Abbott Laboratories performed and submitted a Remedial Facility Investigation (RFI) Report in April 1992 and a Corrective Measures Study (CMS) in June 2000.

23. As part of the RFI, Abbott Laboratories' consultant conducted additional groundwater monitoring. It installed three additional well clusters supplementing the groundwater monitoring wells previously installed by Abbott Laboratories and used since 1979 to remediate the groundwater (Attachment II).

24. From 1984 to March of 2000, Respondent conducted groundwater sampling on a quarterly basis. Acrylonitrile has not been detected since January 1990, aniline has not been detected since December 1990, and pyridine has not been detected since September 1990. In March 2001, the hazardous constituent O-toluidine (2-Methyl aniline), was found in a ground water sample at a level of 24.2 ug/l, and is the only hazardous constituent still being detected above an action level.

25. Volatile organic compounds (VOCs) such as benzene, ethylbenzene, toluene, tetrachlorethylene, 1,2- Dichloroethylene, 1,2- Dichloroethane, 1,1- Dichloroethylene, and 1,1,-

Trichloroethane were not found in shallow waste source characterization samples from the pond or the lagoon leachate so it is probable that VOC contamination found in groundwater samples originated from an off-site source.

26. Based on the information provided in the RFI, the facility geology is described as follows:

BEDROCK

Based on the RFI, the uppermost bedrock unit beneath the Facility is the Wellington Formation. The Wellington consists mainly of calcareous, gray and blue-gray shale containing thick beds of salt and thin beds of gypsum, anhydride, and impure limestone. Gypsum beds are most common in the lower part of the formation. The Hutchinson Salt Member lies in the middle of the Wellington Formation but has been removed by solution in the eastern two-thirds of Sedgwick County, and partially removed in the area beneath the Facility. The Hutchinson Salt member was not encountered during the bedrock coring performed as part of the RFI field activities. Within five to ten miles west of the Facility, the Hutchinson Salt thickens to near its uneroded thickness of approximately 350 feet. The Wellington is approximately 400 feet thick beneath the Facility, and ranges in thickness from 80 feet thick near the east county line, where it is partially eroded, to 550 feet thick near the west county line, where the entire thickness of salt and gypsum are present.

The Wellington is considered to be the lower confining layer for the unconsolidated deposits underneath the Facility. The unconsolidated deposits are the major water producing units in central Sedgwick County. Approximately 100 to 150 feet of Pleistocene to Recent deposits overlie the Wellington in the vicinity of the Facility. The Pliocene-Pleistocene Ogallala has not been identified in the southern part of Sedgwick County, including the Facility. The lowermost unconsolidated deposits beneath the Facility are the Lower Pleistocene, undifferentiated Nebraskan and Kansan deposits which are overlain by Illinoisan terrace deposits.

The Nebraskan and Kansan deposits consist mainly of tan, sandy silt, sand, and fine to medium grained gravel. A few miles south of the Facility, a layer of volcanic ash known as the Pearlette Ash Bed was encountered in these deposits. The Illinoisan terrace deposits consist of gray, sandy silt, sand, and fine to medium grained gravel. Both units thin to the southwest.

SOILS

Two soil types found at the Facility are the Tabler Silty Clay Loam and the Blanket Silt Loam (USDA, 1979). The Tabler typically has a permeability of 0.2-0.6 inches/hour (1.4×10^{-4} to 4.2×10^{-3} cm/sec) in the top nine inches, and 0.06 inches/hour (4.2×10^{-4} cm/sec) below nine inches. The soil is capable of storing large quantities of water, but releases the water slowly. A high perched water table at a depth of 2.5 to 3.5 feet bgs

commonly forms from October through April. The Blanket has a permeability of 0.6 to 2.0 inches/hour (4.2×10^{-3} to 1.4×10^{-3} cm/sec) above 14 inches in depth, and 0.3 to 0.6 inches/hour (2.1×10^{-4} to 4.2×10^{-3} cm/sec) below 14 inches.

HYDROLOGY

The surface drainage of the area is to the Arkansas River and its tributaries. Dry Creek, an intermittent stream, lies approximately 1 mile to the southwest of the Facility. Dry Creek flows southward to Spring Creek which eventually flows into the Arkansas River by way of the Ninnescah River. The Ninnescah River is located approximately eight miles southwest of the Facility. Much of the flat land near the Arkansas River is very poorly drained and artificial drains have been installed on much of the agricultural land. A flood diversion system has been constructed around Wichita to alleviate recurrent flooding of the urban areas by the Little Arkansas and Arkansas Rivers. A portion of this floodway system, the Wichita Valley Center Floodway, lies about five miles to the east of the Facility.

GROUNDWATER

The unconsolidated deposits which overlie the Wellington Shale comprise the uppermost aquifer at the Facility. The Wellington Shale acts as a lower confining layer for the aquifer. Some water is available from the weathered portion of the Wellington, but it tends to be highly mineralized because of the evaporites present in the formation. The productivity of wells

completed in the Wellington tends to be low. Because of the low yield and generally poor water quality, most of the wells in the vicinity of the Facility do not generally penetrate far into the Wellington Formation.

Although the unconsolidated deposits can generally be differentiated into separate sand and clay units, most wells completed into these deposits are not screened in any single stratigraphic interval. The water obtained from the formations is usually high in dissolved solids, but is suitable for most purposes. The water from the lowest portions of the aquifer may contain undesirable amounts of dissolved salt from the Wellington in the area of the Facility.

The aquifer at the Facility is generally comprised of two layers of higher and lower permeability, corresponding to sand and clay stratifications. Monitoring well clusters have been installed by Abbott and others to monitor the groundwater because of the multi-layered aquifer. Regional groundwater flow is generally to the southeast, but localized, transient pumpage for irrigation, water supply and extraction wells disrupt the regional pattern.

27. O-toluidine (2-Methyl-aniline) is a probable human carcinogen.

28. The aquifer immediately underlying the Facility is used as a regional source of drinking water. At least four residences are located within one mile of the Facility. It is not known

whether drinking water for these residences is supplied by wells or a municipal water supply system.

VI. CONCLUSIONS OF LAW AND DETERMINATIONS

Based on the foregoing findings of fact and the administrative record, the Air, RCRA, and Toxics Division Director, EPA Region VII, hereby makes the following conclusions and determinations:

29. Respondent is a person within the meaning of Section 1004(15) of RCRA.

30. Respondent is the owner or operator of a Facility that has operated, under interim status subject to § 3005(e) of RCRA.

31. O-toluidine, a hazardous constituent found at the Facility is a hazardous constituent pursuant to §§ 1004(5) and 3001 of RCRA; 40 C.F.R. Parts 260 and 261 (Appendix VIII).

32. There is or has been a release of hazardous wastes or hazardous constituents into the environment from the Facility.

33. The actions required by this Order are necessary to protect human health and/or the environment.

VII. PROJECT COORDINATOR

34. EPA's Project Coordinator is William F. Lowe. Within thirty (30) days of the effective date of this Order, Respondent shall designate a Project Coordinator and shall notify EPA in writing of the Project Coordinator it has selected. Respondent's and EPA's Project Coordinators designated in Section XVI

(Notification) shall be responsible for overseeing the implementation of this Order and for designating a person to act in his/her absence. The EPA Project Coordinator will be EPA's designated representative for the Facility. To the maximum extent practicable, all communications between Respondent and EPA, and all documents, reports, approvals, and other correspondence concerning the activities performed pursuant to this Order shall be directed through the Project Coordinators.

35. The parties may change their Project Coordinators but agree to provide at least ten (10) days written notice prior to changing a Project Coordinator.

36. The absence of the EPA Project Coordinator from the Facility shall not be cause for the stoppage of work. EPA's disapproval of Respondent's designation of its Project Coordinator pursuant to Section XI, Agency Approvals/Submittals shall not be subject to review under Section XXII (Dispute Resolution).

VIII. CONTRACTOR/CONSULTANT

37. All work to be performed pursuant to this Order shall be under the direction and supervision of a professional engineer, hydrologist, geologist, or environmental scientist, with expertise in hazardous waste cleanup. Respondent's contractor or consultant shall have the technical expertise sufficient to adequately perform all aspects of the work for which it is responsible. Within fourteen (14) days of the effective date of this Order,

Respondent shall notify the EPA Project Coordinator in writing of the name, title, and qualifications of the engineer, hydrologist, geologist, or environmental scientist and of any contractors or consultants and their personnel to be used in carrying out the terms of this Order. In addition, Respondent shall ensure that when a license is required, it uses licensed individuals for performing any work required by this Order.

38. Respondent shall identify whether any contractor is on the List of Parties Excluded from Federal Procurement or Non-Procurement Programs.

39. EPA reserves the right to disapprove Respondent's contractor or consultant. If EPA disapproves a contractor or consultant, Respondent must, within thirty (30) days of receipt from EPA of written notice of disapproval, notify EPA in writing of the name, title, and qualifications of any replacement. Any replacement is also subject to EPA approval. EPA's disapproval of any contractor or consultant shall not be subject to review under Section XX (Dispute Resolution).

IX. WORK TO BE PERFORMED

40. Pursuant to § 3008(h) of RCRA, 42 U.S.C. § 6928(h), Respondent agrees to and is hereby ordered to perform the acts specified in this section, in the manner and by the dates specified herein. All work undertaken pursuant to this Order shall be performed in a manner consistent with, at a minimum: the

Scope of Work set forth in Attachment IV; Corrective Measures Implementation Work plan, and all other Work plans; RCRA and other applicable Federal laws and their implementing regulations; and applicable EPA guidance documents.

41. Relevant guidance may include, but is not limited to, the "RCRA Groundwater Monitoring Technical Enforcement Guidance Document" (OSWER Directive 9950.1, September 1986); Handbook of Suggested Practices for the Design and Installation of Ground Water Monitoring Wells, (EPA/600/4-034 March 1991); and such other applicable guidance identified by EPA.

42. Respondent may utilize studies, surveys and other relevant derived data that has been previously prepared and collected concerning the Facility.

43. Within thirty (30) days of the effective date of this Order, Respondent shall submit to EPA for its review and approval a Corrective Measures Implementation Work plan (CMI Work plan), within the timeframe options stated in the Scope of Work and per the requirements of Task I of the Scope of Work (Attachment IV). The CMI Work plan is subject to approval by EPA in accordance with Section XI (Agency Approvals/Proposed Contractor/Additional Work).

44. Following the submission of a CMI Work plan, Respondent shall submit to EPA for its review and approval a Monitoring and Maintenance Plan and a Community Relations Plan within the timeframe options stated in the Scope of Work and per the

requirements of Tasks 2 and 4 of the CMI Scope of Work (Attachment IV).

45. Respondent shall also submit a Health and Safety Plan to EPA for its review in accordance with Task 3 of the CMI Scope of Work (Attachment IV).

46. EPA will review and approve the CMI Work plan, the Monitoring and Maintenance Plan, and the Community Relations Plan and notify Respondent in writing of EPA's approval/disapproval, or modification in accordance with Section XI (Agency Approvals/Submittals). EPA will review the Health and Safety Plan.

47. Upon EPA's approval of Respondent's CMI Work plan pursuant to Section XI (Agency Approvals/Submittals) of this Order, Respondent shall implement the CMI in accordance with the EPA-approved CMI Work plan and the requirements of the CMI Scope of Work (Attachment IV). The Respondent shall furnish all personnel, material, and service necessary for, or incidental to, performing the CMI at the Facility.

48. Within forty-five days of achieving the corrective action objective as defined in the CMI Scope of Work (Attachment IV), Respondent shall submit a Corrective Measures Completion Report (CMC Report) in accordance with Task 5 of the CMI Scope of Work (Attachment IV). EPA will review the CMC Report and notify Respondent in writing of EPA's approval/disapproval, or

modification in accordance with Section XI (Agency Approvals/Submittals).

X. PUBLIC PARTICIPATION AND COMMENT IN CORRECTIVE MEASURE(S) SELECTION

49. From August 13 to October 2, 2001, EPA provided the public with an opportunity to review and comment on the final draft of the Corrective Measures Study Report and a description of EPA's proposed corrective measures, including EPA's justification for proposing such corrective measures (the "Statement of Basis"). No comments were received.

50. Following the public comment period, EPA approved the Corrective Measures Study Report and selected a final corrective measure.

51. In a letter dated February 26, 2002, EPA notified Respondent of the final corrective measure selected by EPA.

XI. AGENCY APPROVALS/SUBMITTALS

52. EPA will provide Respondent with its written approval, approval with conditions and/or modifications, disapproval, or disapproval with comments, for any Work plan, report (except progress reports), specification, or schedule submitted pursuant to or required by this Order. EPA will provide a statement of reasons for any approval with conditions and/or modifications, disapproval or disapproval with comments.

53. All documents, including Work plans, preliminary and final reports, progress reports, and other correspondence to be submitted pursuant to this Order shall be hand delivered or sent by certified mail, return receipt requested, United States mail, or overnight courier, postage prepaid, as certified by the sender, on or before the date due.

54. For purposes of complying with a submission deadline, a document shall be deemed delivered on the date indicated on the certificate of service prepared by the sender. Response deadlines, however, shall be calculated from the date of actual receipt.

55. The following procedure will apply to the review and approval of all Work plans, reports, or other documents submitted to EPA for review and approval, including plans and reports submitted pursuant to Section XII (Additional Work). The EPA will review each such document and notify Respondent, in writing, as to its approval or disapproval thereof. In the event EPA does not approve any such document, it will provide written comments regarding the basis of the disapproval. Within thirty (30) days of receipt of the EPA comments, or such longer time period as agreed to in writing by the parties, Respondent shall modify the submission to incorporate EPA's comments, and shall submit the amended report to EPA.

Upon resubmission, EPA, in its sole discretion, may either approve the document, or, if EPA determines that the document does

not adequately address the comments provided by EPA, EPA may unilaterally modify the document, and will provide Respondent with a copy of the document as modified by EPA, to be implemented in accordance with any modifications. Any document so modified shall be deemed approved by EPA. If, upon resubmission, a document, or portion thereof, is unilaterally modified by EPA, Respondent shall be deemed to have failed to submit such plan, report, or item timely and adequately.

56. Respondent shall revise any Work plan, report, specification, or schedule in accordance with EPA's written comments. Respondent shall submit to EPA any revised submittals in accordance with the due date specified by EPA. Revised submittals are subject to EPA approval, approval with conditions and/or modifications, disapproval, or disapproval with comments.

57. Upon receipt of EPA's written approval, Respondent shall commence work and implement any approved Work plan in accordance with the schedule and provisions contained therein.

58. Any EPA approved report, Work plan, specification, or schedule shall be deemed incorporated into this Order. Prior to this written approval, no Work plan, report, specification, or schedule shall be construed as approved and final. Oral advice, suggestions, or comments given by EPA representatives will not constitute an official approval, nor shall any oral approval or oral assurance of approval be considered binding.

XII: ADDITIONAL WORK

59. EPA may determine or Respondent may propose that certain tasks, including but not limited to investigatory work, engineering evaluation, or procedure/methodology modifications, are necessary in addition to or in lieu of the tasks included in any EPA-approved Work plan, when such additional work is necessary to meet the purposes set forth in Section III (Statement of Purpose). If EPA determines that Respondent shall perform additional work, EPA will specify in writing the basis for its determination that the additional work is necessary. Within fifteen (15) days after the receipt of such determination, Respondent shall have the opportunity to meet or confer with EPA to discuss the additional work. If required by EPA, Respondent shall submit for EPA approval a Work plan for the additional work. EPA will specify the contents of such Work plan. Such Work plan shall be submitted within forty (40) days of receipt of EPA's determination that additional work is necessary, or according to an alternative schedule established by EPA. Upon approval of a Work plan by EPA, Respondent shall implement it in accordance with the schedule and provisions contained therein.

XIII. QUALITY ASSURANCE

60. Respondent shall follow EPA guidance for sampling and analysis, including but not limited to the following: EPA

Requirements for Quality Assurance Project Plans (EPA QA/R-5, March 2001); and Guidance for Quality Assurance Project Plans (EPA QA-G/5, February 1998). Work plans shall contain quality assurance/quality control ("QA/QC") and chain of custody procedures for all sampling, monitoring, and analytical activities. Any deviations from the QA/QC and chain of custody procedures in approved Work plans must be approved by EPA prior to implementation; must be documented, including reasons for the deviations; and must be reported in the CMI report.

61. The name(s), addresses, and telephone numbers of the analytical laboratories Respondent proposes to use must be specified in the CMI Work plan.

62. All Work plans required under this Order shall include data quality objectives for each data collection activity to ensure that data of known and appropriate quality are obtained and that data are sufficient to support their intended use(s).

63. Respondent shall monitor to ensure that high quality data is obtained by its consultant or contract laboratories. Respondent shall ensure that laboratories used by Respondent for analysis perform such analysis according to the latest approved edition of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (SW-846 Third Edition as amended by Update One, July 1992), " or other methods deemed satisfactory to EPA. If methods other than EPA methods are to be used, Respondent shall specify all such protocols in the applicable CMI Work plan.

EPA may reject any data that does not meet the requirements of the approved Work plan or EPA analytical methods and may require resampling and additional analysis.

64. Respondent shall ensure that the laboratories it uses for analyses participate in a QA/QC program equivalent to that which is followed by EPA. EPA may conduct a performance and QA/QC audit of the laboratories chosen by Respondent before, during, or after sample analyses. Upon request by EPA, Respondent shall have its laboratory perform analyses of samples provided by EPA to demonstrate laboratory performance. If the audit reveals deficiencies in a laboratory's performance or QA/QC, resampling and additional analysis may be required.

65. Prior to reporting data to EPA, data shall be validated in accordance with the EPA guidelines "US EPA Contract Laboratory Program National Functional Guidelines for Organic Data Review" (EPA, February 1994) and "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review" (EPA, February 1994), or alternative criteria provided in the approved Work plan. Unvalidated data shall be rejected by EPA unless prior approval is received.

XIV. SAMPLING AND DATA/DOCUMENT AVAILABILITY

66. Respondent shall submit to EPA upon request the results of all sampling and/or tests or other data generated by divisions, agents, consultants, or contractors pursuant to this Order.

67. Notwithstanding any other provisions of this Order, the United States retains all of its information gathering and inspection authorities and rights, including the right to bring enforcement actions related thereto, under RCRA, CERCLA, and any other applicable statutes or regulations.

68. Respondent shall notify EPA in writing at least thirty (30) days prior to engaging in any field activities, such as well drilling, installation of equipment, sampling or any other Work approved under any Work plan required by this Order. If Respondent believes it must commence emergency field activities without delay, Respondent may seek emergency telephone authorization from the EPA Project Coordinator or, if the EPA Project Coordinator is unavailable, his/her Branch Manager, to commence such activities immediately. At the request of EPA, Respondent shall provide or allow EPA or its authorized representative to take split or duplicate samples of all samples collected by Respondent pursuant to this Order. Similarly, at the request of Respondent, EPA shall allow Respondent or its authorized representative(s) to take split or duplicate samples of all samples collected by EPA under this Order.

69. Respondent may assert a business confidentiality claim covering all or part of any information submitted to EPA pursuant to this Order. Any assertion of confidentiality must be accompanied by information that satisfies the items listed in 40 C.F.R. § 2.204(e)(4) or such claim shall be deemed waived.

Information determined by EPA to be confidential shall be disclosed only to the extent permitted by 40 C.F.R. Part 2. If no such confidentiality claim accompanies the information when it is submitted to EPA, the information may be made available to the public by EPA without further notice to Respondent. Respondent agrees not to assert any confidentiality claim with regard to any physical or analytical data.

XV. REPORTING AND DOCUMENT CERTIFICATION

70. Beginning with the first full month following the effective date of this Order, and until the schedule in the approved CMS Work plan is in effect, Respondent shall provide EPA with quarterly progress reports. When the CMI Work plan is in effect, Respondent shall submit progress reports according to the approved schedule in the CMI Work plan. Progress reports are due on the first day of the month. The progress reports shall conform to requirements in the Scope of Work contained in Attachment IV. EPA may adjust the frequency of progress reports to be consistent with site-specific activities.

71. The progress reports shall include the following information:

- a. A description of the CMI activities, as appropriate, completed during the reporting period;
- b. Summaries of all findings;

c. Summaries of all changes made to the CMI during the reporting period;

d. Summaries of all contacts, during the reporting period, with representatives of the local community, public interest groups or State government concerning activities at the facility pursuant to this Order;

e. Summaries of all problems or potential problems encountered during the reporting period;

f. Actions being taken to rectify problems;

g. Changes in project coordinator, principal contractor, laboratory, and/or consultant during the reporting period;

h. Projected work for the next reporting period; and

i. Other relevant documentation, including, but not limited to copies of laboratory/monitoring data received and/or generated during the reporting period.

72. Two copies of all documents submitted pursuant to this Order shall be hand delivered, sent by certified mail, return receipt requested, or by overnight express mail to the Project Coordinator or to other addressees she/he designates. One copy of all required submittals will be sent to Kansas Department of Health and Environment, Bureau of Waste Management. Respondent will evaluate the possibility of printing all submittals required by this Order on recycled paper.

73. Any report or other document submitted by Respondent pursuant to this Order which makes any representation concerning Respondent's compliance or noncompliance with any requirement of this Order shall be certified by a responsible corporate officer of Respondent or a duly authorized representative. A responsible corporate officer means: a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation.

74. The certification required by paragraph 73 above, shall be in the following form:

"I certify that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to evaluate the information submitted. I certify that the information contained in or accompanying this submittal is true, accurate, and complete. As to those identified portion(s) of this submittal for which I cannot personally verify the accuracy, I certify that this submittal and all attachments were prepared in accordance with procedures designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those directly responsible for gathering the information, or the immediate supervisor of such person(s), the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signature: _____

Name: _____

Title: _____

Date: _____

XVI. NOTIFICATION AND DESIGNATION OF EPA PROJECT COORDINATOR

75. Unless otherwise specified, all reports, correspondence, approvals, notices, or other submittals relating to or required under this Order shall be in writing and shall be sent to EPA's Project Coordinator:

William F. Lowe
Project Coordinator
U. S. EPA, Region 7
ARTD/RPCB
901 North Fifth Street
Kansas City, Kansas 66101
Telephone: (913) 551-7510
Fax: (913) 551-7947
Email: lowe.bill@epa.gov

Glenn Magee, Principal Specialist
Corporate Environmental Services
Abbott Laboratories, Dept. 539, AP52-S
200 Abbott Park Road
Abbott Park, Illinois 60064-6212
Telephone: (847) 938-8915
Fax: (847) 937-9679
E-mail: Glenn.Magee@abbott.com

EPA may change its designated Project Coordinator at any time by providing written notice to the Respondent.

XVII. ACCESS

76. EPA, its contractors, employees, and/or any duly designated EPA representatives are authorized to enter and freely move about the Facility pursuant to this Order for the purposes of, inter alia: interviewing Facility personnel and contractors; inspecting records, operating logs, and contracts related to the facility; reviewing the progress of Respondent in carrying out the

terms of this Order; conducting such tests, sampling, or monitoring as EPA deems necessary; using a camera, sound recording, or other documentary type equipment; and verifying the reports and data submitted to EPA by Respondent. Respondent agrees to provide EPA and its representatives access at all reasonable times to the Facility and subject to paragraph 77 below, to any other property to which access is required for implementation of this Order. Respondent shall permit such persons to inspect and copy all records, files, photographs, documents, including all sampling and monitoring data, that pertain to work undertaken pursuant to this Order and that are within the possession or under the control of Respondent or its contractors or consultants.

77. To the extent that work being performed pursuant to this Order must be done beyond the Facility property boundary, Respondent shall use its best efforts to obtain access agreements from the owners of such property within thirty (30) days of approval of any Work plan for which access is required. "Best efforts" shall include an initial visit to the premises to speak with the property owner to obtain access, a follow up telephone call, and a letter sent by certified mail from Respondent to the present owner(s) of such property requesting access agreement(s) to permit Respondent and its authorized representatives to access such property. "Best efforts" shall also include the payment of reasonable compensation in consideration of granting access. Any

such access agreement shall provide for access for Respondent, EPA and its authorized representatives to conduct the activities required under this Order. Respondent shall ensure that EPA's Project Coordinator has a copy of any access agreement(s).

78. In the event that agreements for access are not obtained within thirty (30) days of the approval of any Work plan for which access is required or of the date that the need for access became known to Respondent, Respondent shall notify EPA in writing within ten (10) days thereafter of both the efforts undertaken to obtain access and the failure to obtain access agreements. EPA may, at its discretion, assist Respondent in obtaining access. In the event EPA obtains access, Respondent shall undertake EPA-approved work on such property.

79. Respondent agrees to indemnify the United States as provided in Section XXV (Indemnification) for any and all claims arising from activities on such property.

80. Nothing in this section limits or otherwise affects EPA's right of access and entry pursuant to applicable law, including RCRA and CERCLA.

81. Nothing in this section shall be construed to limit or otherwise affect Respondent's liability and obligation to perform corrective action including corrective action beyond the facility boundary, notwithstanding the lack of access.

XVIII. RECORD PRESERVATION

82. Respondent shall retain, during the pendency of this Order and for a minimum of six (6) years after its termination, all data, records, and documents now in its possession or control or which come into its possession or control which relate in any way to this Order or to hazardous waste management and/or disposal at the facility. Respondent shall notify EPA in writing ninety (90) days prior to the destruction of any such records, and shall provide EPA with the opportunity to take possession of any such records. Such written notification shall reference the effective date, caption, and docket number of this Order and shall be addressed to:

William A. Spratlin, Director
Air, RCRA, and Toxics Division
U. S. Environmental Protection Agency, Region VII
901 North Fifth Street
Kansas City, Kansas 66101

83. Respondent further agrees that within thirty (30) days of retaining or employing any agent, consultant, or contractor for the purpose of carrying out the terms of this Order, Respondent will enter into an agreement with any such agents, consultants, or contractors whereby such agents, consultants, and/or contractors will be required to provide Respondent a copy of all documents produced pursuant to this Order.

84. All documents pertaining to this Order shall be stored by Respondent in a Haysville Public Library, Haysville, Kansas to afford ease of access by EPA or its representatives.

XIX. DELAY IN PERFORMANCE/STIPULATED PENALTIES

85. Unless there has been a written modification by EPA of a compliance date, a written modification by EPA of an approved Work plan condition, or excusable delay as defined in Section XXI (Force Majeure and Excusable Delay), if Respondent fails to comply with any term or condition set forth in this Order in the time or manner specified herein, Respondent shall pay stipulated penalties as set forth below upon written demand from EPA. Compliance by Respondent shall include completion of an activity under this Order or a plan approved under this Order or completion of any other requirement of this Order in an acceptable manner and within the specified time schedules in and approved under this Order.

a. For failure to submit the CMI Work plan required by paragraph 43, and/or the CMC report required by paragraph 48 of this Order, Respondent shall pay \$2,000 per day for the first seven (7) days of such violation, \$3,000 per day for the eighth to the twenty-first day of such violation, \$4,000 per day for the twenty-second to the thirtieth day of such violation, and \$5,000 per day for each day of such violation, thereafter;

b. For failure to complete any work required by Section XII (Additional Work), and for failure to notify EPA of immediate or potential threats to human health and/or the environment, new release of hazardous waste and/or hazardous constituents, as required by this Order, Respondent shall pay: \$2,000 per day for the first seven (7) days of such violation, \$3,000 per day for the

eighth to the twenty-first day of such violation, \$4,000 per day for the twenty-second to the thirtieth day of such violation, and \$5,000 per day for each day of such violation, thereafter;

c. For failure to submit written progress reports in accordance with the requirements of Section XIV (Reporting and Document Certification) and for failure to timely comply with any other notice or submission requirement of this Order, Respondent shall pay: \$1,000 per day for the first seven days of such violation, \$1,500 per day for the eighth through twenty-first day of such violation, \$2,000 per day for the twenty-second through the thirtieth day of such violation, and \$2,500 for each day of such violation, thereafter.

d. For failure to comply with any other provisions of this Order in a manner acceptable to EPA, Respondent shall pay: \$1,000 per day for the first seven days of such violation, \$1,500 per day for the eighth through the twenty-first day of such violation, \$2,000 per day for the twenty-second through the thirtieth day of such violation, and \$2,500 for each day of such violation, thereafter.

86. Penalties shall begin to accrue on the day after the complete performance is due or the day a violation occurs, and shall continue to accrue through the day of correction of the violation. Nothing herein shall prevent the simultaneous accrual of separate stipulated penalties for separate violations of this

Order. Penalties shall continue to accrue regardless of whether EPA has notified the Respondent of a violation.

87. All penalties owed to the United States under this Section shall be due and payable within thirty (30) days of the Respondent's receipt from EPA of a written demand for payment of the penalties, unless Respondent invokes the dispute resolution procedures under Section XX (Dispute Resolution). Such a written demand will describe the violation and will indicate the amount of penalties due.

88. Interest shall begin to accrue on any unpaid stipulated penalty balance beginning on the thirty-first day after Respondent's receipt of EPA's demand letter. Interest shall accrue at the Current Value of Funds Rate established by the Secretary of the Treasury. Pursuant to 31 U.S.C. § 3717, an additional penalty of 6% per annum on any unpaid principal shall be assessed for any stipulated penalty payment which is overdue for ninety (90) or more days.

89. All penalties shall be made payable by certified or cashier's check to the United States of America and shall be remitted to:

U.S. Department of the Treasury
Attention: Region VII
Office of the Comptroller
P.O. Box 360748M
Pittsburgh, PA 15251

All such checks shall reference the name of the Facility, the Respondent's name and address, and the EPA docket number of this

action. Copies of all such checks and letters forwarding the checks shall be sent simultaneously to the EPA Project Coordinator.

90. Respondent may dispute EPA's assessment of stipulated penalties by invoking the dispute resolution procedures under Section XX (Dispute Resolution). The stipulated penalties in dispute shall continue to accrue, but need not be paid, during the dispute resolution period. Respondent shall pay stipulated penalties and interest, if any, in accordance with the dispute resolution decision and/or agreement. Respondent shall submit such payment to EPA within twenty (20) days of receipt of such resolution in accordance with Paragraph 89 of this Section.

91. Neither the invocation of dispute resolution nor the payment of penalties shall alter in any way Respondent's obligation to comply with the terms and conditions of this Order.

92. The stipulated penalties set forth in this section do not preclude EPA from pursuing any other remedies or sanctions which may be available to EPA by reason of Respondent's failure to comply with any of the terms and conditions of this Order.

93. No payments under this section shall be tax deductible for federal tax purposes.

XX. DISPUTE RESOLUTION

94. The parties shall use their best efforts to informally and in good faith resolve all disputes or differences of opinion.

The parties agree that the procedures contained in this section are the sole procedures for resolving disputes arising under this Order. If Respondent fails to follow any of the requirements contained in this section then it shall have waived its right to further consideration of the disputed issue.

95. If Respondent disagrees, in whole or in part, with any decision or directive made by EPA pursuant to this Consent Order, Respondent's Project Coordinator shall notify EPA's Project Coordinator in writing of its objections and the basis therefore within ten (10) business days of receipt of EPA's decision or directive. For fourteen (14) days, the Project Coordinators shall attempt to informally resolve the dispute, and during this fourteen (14) day period all communications regarding the informal resolution of the dispute shall be documented in writing.

96. If the Project Coordinators cannot resolve the dispute informally, Respondent may pursue the matter formally by placing its objections in writing according to the following procedures: If at the end of the fourteen (14) day informal dispute resolution period, the dispute has not been resolved, Respondent shall, within seven (7) days of the end of the informal dispute resolution period, submit a formal notice of dispute to EPA's Project Coordinator and to the Regional Hearing Officer, Region VII, (Hearing Officer). This notice shall set forth the specific points of the dispute, the position Respondent is maintaining should be adopted as consistent with the requirements of this

Consent Order, the factual and legal bases for Respondent's position, and all matters it considers necessary for resolution of the dispute.

97. EPA and Respondent shall have ten (10) days from EPA's receipt of Respondent's written objections to attempt to resolve the dispute through formal negotiations. The parties may extend this period of time up to a total of thirty (30) days by mutual agreement. During such period ("Negotiations Period"), Respondent may request a conference with the Hearing Officer to discuss the dispute and Respondent's objections. EPA agrees to confer in person or by telephone to resolve any such disagreement with Respondent so as long as Respondent's request for a conference will not extend the Negotiation Period.

98. If agreement on the dispute is reached during the Negotiation Period, the agreement shall be reduced to writing and jointly submitted to the Hearing Officer along with a request to terminate the formal dispute resolution process.

99. If the parties are unable to reach an agreement during the Negotiation Period, EPA will submit to Respondent and to the Hearing Officer a response to Respondent's notice of dispute, including, but not limited to, any factual data, analysis, or opinion supporting that position and all supporting documentation relied upon by EPA.

100. The Hearing Officer will issue a final decision resolving the dispute based upon the record described in paragraph

96 and 99 above. Once rendered, the decision of the Hearing Officer shall be incorporated into this Consent Order.

101. Except as provided in Section XIX (Delay in Performance/Stipulated Penalties), the existence of a dispute as defined in this section and EPA's consideration of matters placed into dispute shall not excuse, toll, or suspend any compliance obligation or deadline required pursuant to this Order during the pendency of the dispute resolution process. Stipulated penalties with respect to the disputed matter shall continue to accrue but payment shall be stayed pending resolution of the dispute. Accrued stipulated penalties shall be paid to EPA within fifteen days of receipt of EPA's decision regarding dispute resolution pursuant to Paragraph 100. EPA will send a written demand for stipulated penalties accompanying the decision regarding dispute resolution.

XXI. FORCE MAJEURE AND EXCUSABLE DELAY

102. Force majeure, for purposes of this Order, is defined as any event arising from causes not foreseen and beyond the control of Respondent or any person or entity controlled by Respondent, including but not limited to Respondent's contractors, that delays or prevents the timely performance of any obligation under this Order despite Respondent's best efforts to fulfill such obligation. The requirement that Respondent exercise "best efforts to fulfill such obligation" shall include, but not be

limited to, best efforts to anticipate any potential force majeure event and address it before, during, and after its occurrence, such that any delay or prevention of performance is minimized to the greatest extent possible. Force majeure does not include increased costs of the work to be performed under this Order, financial inability to complete the work, work stoppages or other labor disputes.

103. If any event occurs or has occurred that may delay the performance of any obligation under this Order, whether or not caused by a force majeure event, Respondent shall contact by telephone and communicate orally with EPA's Project Coordinator or, in his or her absence, EPA's alternative Project Coordinator or, in the event both of EPA's designated representatives are unavailable, the Manager, RCRA Corrective Action and Permits Branch, EPA Region VII (RCRA Branch), within forty-eight (48) hours of when Respondent first knew or should have known that the event might cause a delay. If Respondent wishes to claim a force majeure event, then within three (3) days thereafter, Respondent shall provide to EPA in writing the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; all other obligations affected by the force majeure event, and what measures, if any, taken or to be taken to minimize the effect of the event on those obligations; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; Respondent's rationale for

attributing such delay to a force majeure event if it intends to assert such a claim; and a statement as to whether, in the opinion of Respondent, such event may cause or contribute to an endangerment to public health or the environment. Respondent shall include with any notice all available documentation supporting its claim, if any, that the delay was attributable to a force majeure. Failure to comply with the above requirements shall preclude Respondent from asserting any claim of force majeure for that event. Respondent shall be deemed to have notice of any circumstances of which its contractors had or should have had notice.

104. If EPA determines that the delay or anticipated delay is attributable to a force majeure event, the time for performance of such obligation under this Order that is affected by the force majeure event will be extended by EPA for such time as EPA determines is necessary to complete such obligation. An extension of the time for performance of such obligation affected by the force majeure event shall not, of itself, extend the time for performance of any other obligation, unless Respondent can demonstrate that more than one obligation was affected by the force majeure event. If EPA determines that the delay or anticipated delay has been or will be caused by a force majeure event, EPA will notify Respondent in writing of the length of the extension, if any, for performance of such obligations affected by the force majeure event.

105. If EPA disagrees with Respondent's assertion of a force majeure event, EPA will notify Respondent in writing and Respondent may elect to invoke the dispute resolution provision, and shall follow the time frames set forth in Section XX (Dispute Resolution). In any such proceeding, Respondent shall have the burden of demonstrating by a preponderance of the evidence that the delay or anticipated delay has been or will be caused by a force majeure event, that the duration of the delay or the extension sought was or will be warranted under the circumstances, that best efforts were exercised to avoid and mitigate the effects of the delay, and that Respondent complied with the requirements of this Section. If Respondent satisfies this burden, the time for performance of such obligation will be extended by EPA for such time as is necessary to complete such obligation.

XXII. RESERVATION OF RIGHTS

106. EPA reserves all of its statutory and regulatory powers, authorities, rights, and remedies, both legal and equitable, which may pertain to Respondent's failure to comply with any of the requirements of this Order, including without limitation the assessment of penalties under § 3008(h)(2) of RCRA, 42 U.S.C. § 6928(h)(2). This Order shall not be construed as a covenant not to sue, release, waiver, or limitation of any rights, remedies, powers, and/or authorities, civil or criminal, which EPA

has under RCRA, CERCLA, or any other statutory, regulatory, or common law authority of the United States.

107. EPA reserves the right to disapprove of Work performed by Respondent pursuant to this Order and to order that Respondent perform additional tasks.

108. Notwithstanding any other provisions of this Order, the United States retains all of its information gathering and inspection authorities and rights, including the right to bring enforcement actions related thereto, under RCRA, CERCLA, and any other applicable statutes or regulations.

109. EPA reserves the right to perform any portion of the work consented to herein and remedial work as it deems necessary to protect human health and/or the environment. EPA may exercise its authority under CERCLA to undertake response actions at any time. In any event, EPA reserves its right to seek reimbursement from Respondent for costs incurred by the United States. Notwithstanding compliance with the terms of this Order, Respondent is not released from liability, if any, for the costs of any response actions taken or authorized by EPA.

110. If EPA determines that activities in compliance or noncompliance with this Order have caused or may cause a release of hazardous waste or hazardous constituent(s), or a threat to human health and/or the environment, or that Respondent is not capable of undertaking any of the work ordered, EPA may order Respondent to stop further implementation of this Order for such

period of time as EPA determines may be needed to abate any such release or threat and/or to undertake any action which EPA determines is necessary to abate such release or threat.

111. This Order is not intended to be nor shall it be construed to be a permit. Further, the parties acknowledge and agree that EPA's approval of the SOW or any final Work plan does not constitute a warranty or representation that the SOW or Work plans will achieve the required cleanup or performance standards. Compliance by Respondent with the terms of this Order shall not relieve Respondent of its obligations to comply with RCRA or any other applicable local, state, or federal laws and regulations.

112. Notwithstanding any other provision of this Order, no action or decision by EPA pursuant to this Order, including without limitation, decisions of the Regional Administrator; the Director of the Director of the Air, RCRA, and Toxics Division; the RCRA Corrective Action and Permits Branch Chief; or any authorized representative of EPA, shall constitute final agency action giving rise to any right of judicial review prior to EPA's initiation of a judicial action to enforce this Order, including an action for penalties or an action to compel Respondent's compliance with the terms and conditions of this Order.

113. In any action brought by EPA for a violation of this Order, Respondent shall bear the burden of proving that EPA's actions were arbitrary and capricious and not in accordance with law.

114. In any subsequent administrative or judicial proceeding initiated by the United States for injunctive or other appropriate relief relating to the facility, Respondent shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, res judicata, collateral estoppel, issue preclusion, claim-splitting, or other defenses based upon any contention that the claims raised by the United States in the subsequent proceeding were or should have been raised in the present matter.

XXIII. OTHER CLAIMS

115. Nothing in this Order shall constitute or be construed as a release from any claim, cause of action, demand, or defense in law or equity, against any person, firm, partnership, or corporation for any liability it may have arising out of or relating in any way to the generation, storage, treatment, handling, transportation, release, or disposal of any hazardous constituents, hazardous substances, hazardous wastes, pollutants, or contaminants found at, taken to, or taken or migrating from the Facility. Respondent waives any claims or demands for compensation or payment under §§ 106(b), 111, and 112 of CERCLA against the United States or the Hazardous Substance Superfund for, or arising out of, any activity performed or expense incurred pursuant to this Order. Additionally, this Order does not constitute any decision on preauthorization of funds under § 111(a)(2) of CERCLA.

XXIV. OTHER APPLICABLE LAWS

116. All actions required to be taken pursuant to this Order shall be undertaken in accordance with the requirements of all applicable local, state, and federal laws and regulations. Respondent shall obtain or cause its representatives to obtain all permits and approvals necessary under such laws and regulations.

XXV. INDEMNIFICATION OF THE UNITED STATES GOVERNMENT

117. Respondent agrees to indemnify and save and hold harmless the United States Government, its agencies, departments, agents, and employees, from any and all claims or causes of action arising from or on account of acts or omissions of Respondent or its officers, employees, agents, independent contractors, receivers, trustees, and assigns in carrying out activities required by this Order. This indemnification shall not be construed in any way as affecting or limiting the rights or obligations of Respondent or the United States under their various contracts.

XXVI. FINANCIAL RESPONSIBILITY

118. (a) At the time of the CMI Work plan submittal, Respondent shall submit to EPA a cost estimate for implementation of this Order, which shall include direct and indirect capital costs, operation and maintenance costs and any other costs attributable to the implementation of the requirements of this Order; and within thirty (30) days receipt of approval of the CMI

Work Plan Respondent shall submit documentation of financial assurance in an amount equal to the cost estimate described above to guarantee completion of the work required pursuant to this Order. Such financial assurance shall be in any one or a combination of the following, and shall be consistent with the provisions of this Order and 40 C.F.R. Part 265, Subpart H:

- a. A performance or surety bond;
- b. A letter of credit;
- c. A trust fund; or
- d. A financial test or corporate guarantee from a parent, sibling or higher tier parent corporation.

If at any time EPA determines that Respondent has defaulted in its responsibilities with regard to this Order, EPA may, after ten (10) days notice to Respondent, undertake to complete the tasks set forth in this order, utilizing the proceeds of the foregoing financial assurance, unless Respondent used the financial test without EPA objection as the means of providing financial assurance.

XXVII. MODIFICATION

119. This Order may only be modified by mutual agreement of EPA and Respondent. Any agreed modifications shall be in writing, be signed by both parties, shall have as their effective date the date on which they are signed by EPA, and shall be incorporated into this Order.

120. Any requests for a compliance date modification or revision of an approved Work plan requirement must be made in writing. Such requests must be timely and provide justification for any proposed compliance date modification or Work plan revision. EPA has no obligation to approve such requests, but if it does so, such approval must be in writing. Any approved compliance date or Work plan modification shall be incorporated by reference into the Order.

121. This section shall not apply to any EPA dispute decision, EPA approved report, Work plan, specification and schedule which are deemed to be incorporated into this Order.

XXVIII. SEVERABILITY

122. If any provision or authority of this Order or the application of this Order to any party or circumstances is held by any judicial or administrative authority to be invalid, the application of such provisions to other parties or circumstances and the remainder of the Order shall remain in force and shall not be affected thereby.

XXIX. TERMINATION AND SATISFACTION

123. The provisions of this Order shall be deemed satisfied upon Respondent's and EPA's execution of an "Acknowledgment of Termination and Agreement to Record Preservation and Reservation of Rights" (Acknowledgment). EPA will prepare the Acknowledgment for Respondent's signature. Respondent may request that EPA

prepare the Acknowledgment. The Acknowledgment will specify that Respondent has demonstrated to the satisfaction of EPA that the terms of this Order, including any additional tasks determined by EPA to be required pursuant to this Order, have been satisfactorily completed. Respondent's execution of the Acknowledgment will affirm Respondent's continuing obligation (1) to preserve all records as required in Section XVIII (Record Preservation) and (2) to recognize EPA's reservation of rights as required in Section XXII (Reservation of Rights), after all other requirements of the Order are satisfied. The execution of the Acknowledgment by both parties shall terminate the Order with the exception of the two requirements in the previous sentence.

XXX. SURVIVABILITY/PERMIT INTEGRATION

124. Except as otherwise expressly provided in this section, this Order shall survive the issuance or denial of a RCRA permit for the Facility, and this Order shall continue in full force and effect after either the issuance or denial of such permit. Accordingly, Respondent shall continue to be liable for the performance of obligations under this Order notwithstanding the issuance or denial of such permit. If the Facility is issued a RCRA permit and that permit expressly incorporates all or a part of the requirements of this Order, or expressly states that its requirements are intended to replace some or all of the

requirements of this Order, Respondent may request a modification of this Order and shall, with EPA approval, be relieved of liability under this Order for those specific obligations.

XXXI. EFFECTIVE DATE

125. This Order shall be effective upon receipt by Respondent of a fully executed copy thereof and all times for performance of actions pursuant to this Order shall be calculated from that date.

XXXII. APPENDICES

126. The following appendices are attached to and incorporated into this Order:

Attachment I contains a Facility Location map.

Attachment II contains a Map of the Facility.

Attachment III contains the legal description of the Facility.

Attachment IV contains the Scope of Work for the CMI.

IN THE MATTER OF:
Abbott Laboratories
Wichita, Kansas 67277
Docket No.

IT IS SO AGREED:

6/20/02

Date

Robert Morrison

Name - Robert Morrison
(Title) - Div. VP, Corporate EHS&E
Abbott Laboratories

6/20/02
Date

Robert Morrison

Name - Robert Morrison
(Title) - Div. VP, Corporate EHS&E
Abbott Laboratories

IN THE MATTER OF:
Abbott Laboratories
Wichita, Kansas 67277
Docket No.

For the United States Environmental Protection Agency:

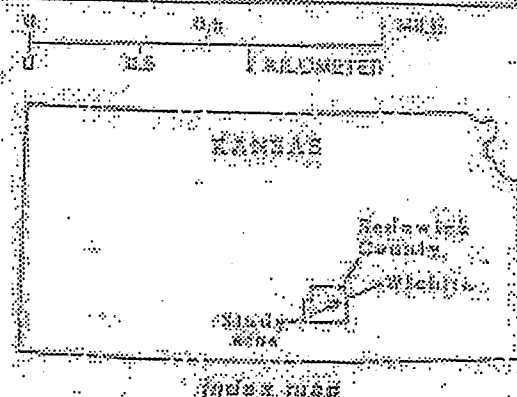
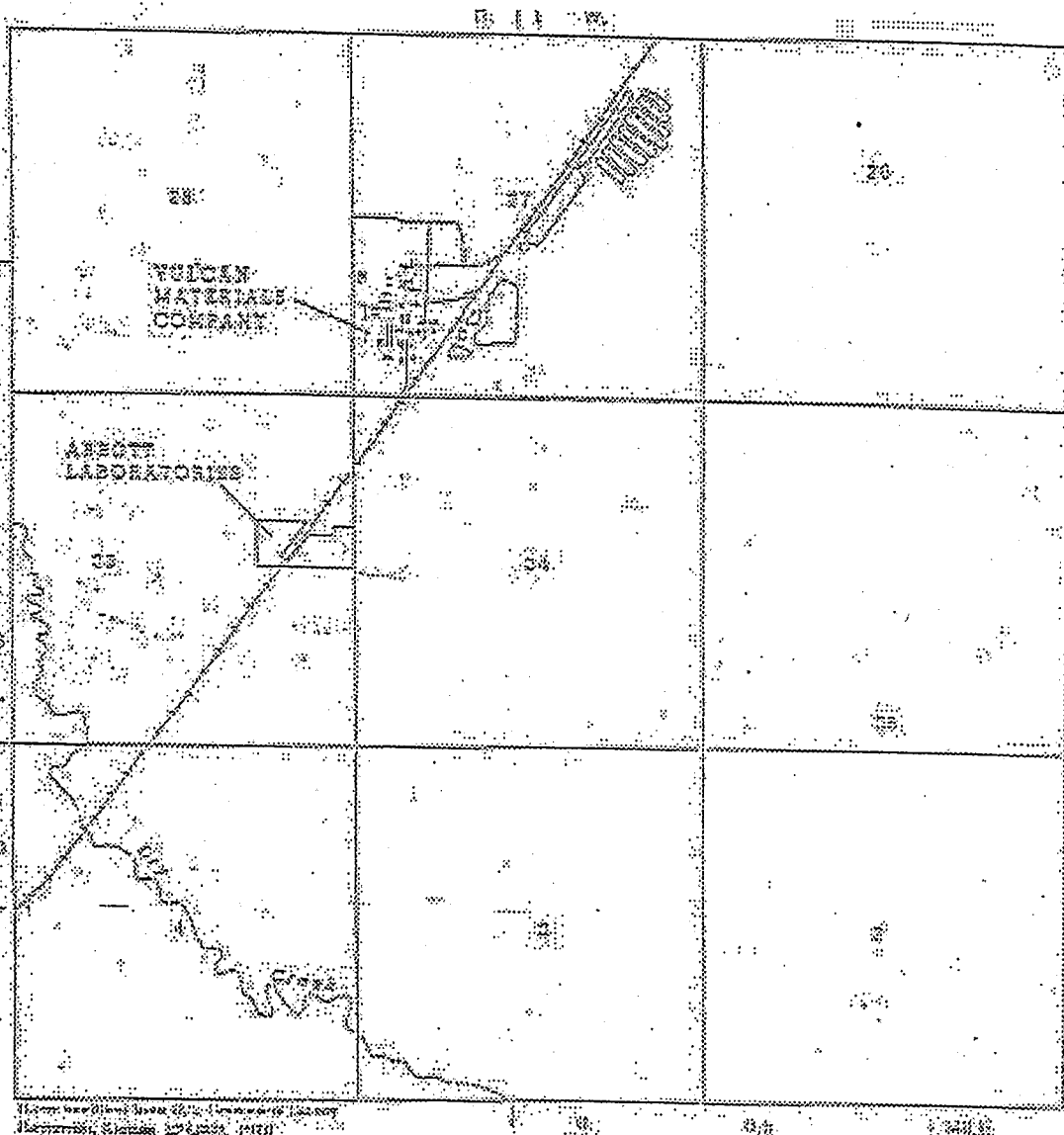
6/24/02
Date

Denise L. Roberts
Denise L. Roberts
Senior Assistant Regional Counsel
Environmental Protection Agency
Region VII

IT IS SO ORDERED:

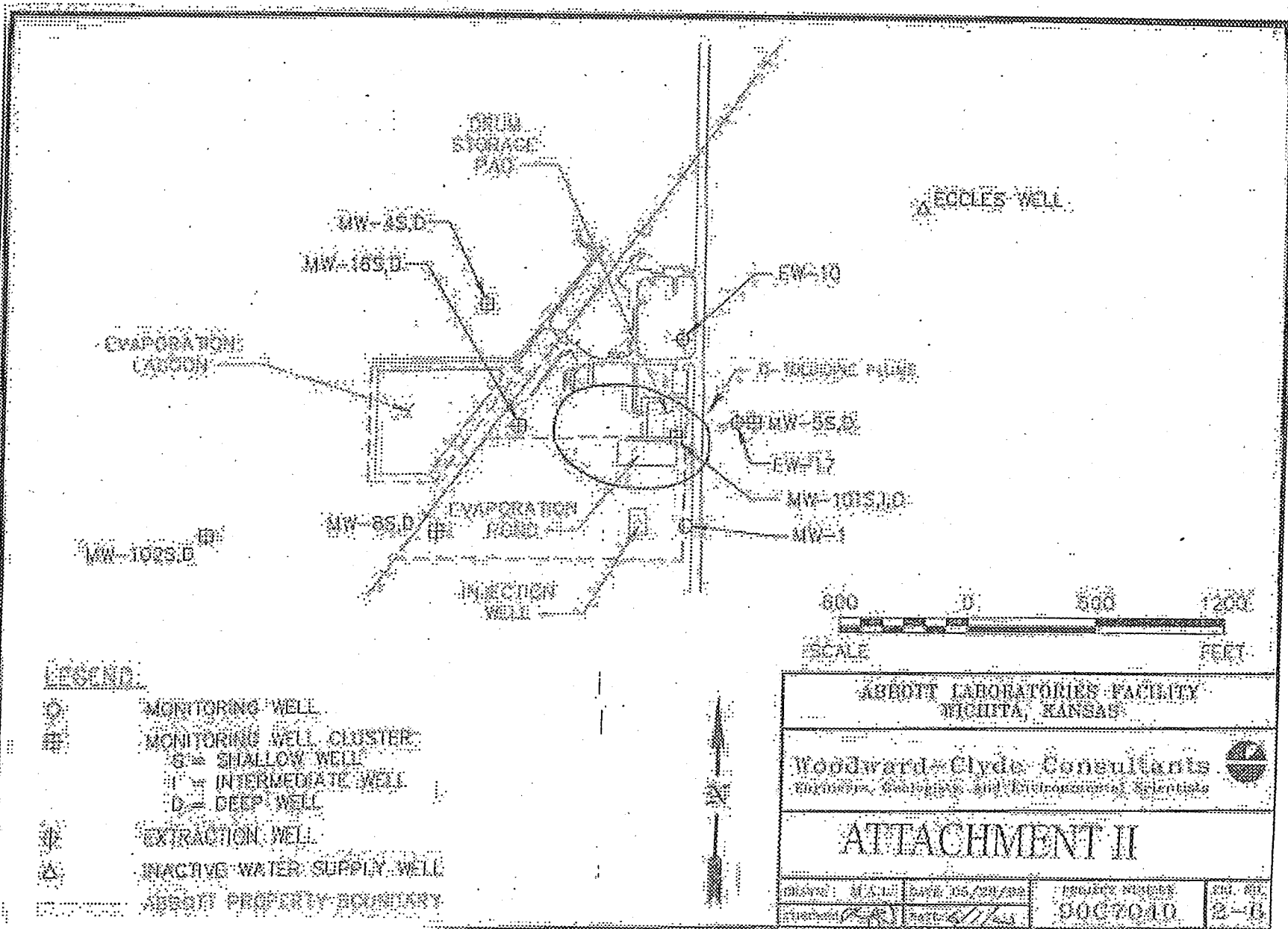
6-24-02
Date

Thomas F. Hogan
for: William A. Spratlin
Director, Air, RCRA, and Toxics Division
Environmental Protection Agency
Region VII



Facility Location: Abbott Laboratories, Wichita, Kansas

ATTACHMENT I



NE 1/4,- said-point also being on the west right-of-way line of the St. Louis, Fort Scott and Wichita Railroad now the Missouri Pacific Railroad as established at Deed Book 36, Page 124; thence west along the south line of said NE 1/4, 355 feet; thence north parallel with the east line of said NE 1/4, 850 feet; thence east parallel with the south line of said NE 1/4, 630 feet; thence southeasterly to a point on said west railroad right-of-way line, said point being 955 feet northeast of the place of beginning as measured along said railroad right-of-way line; thence southwesterly along said railroad right-of-way line; 955 feet to the place of beginning; and **EXCEPT** all oil and gas rights underlying the surface of said land and all rights and easements in favor of the estate of said oil and gas rights.

A tract of land lying in the S 1/4 of the NE 1/4 of Sec. 33, Twp. 28-S, R-1-W of the 6th P.M., Sedgwick County, Kansas, described as beginning at the S.E. Corner of Said NE 1/4; thence north along the east line of said NE 1/4, 590 feet; thence west parallel with the south line of said NE 1/4, 118 feet; thence north parallel with the east line of said NE 1/4, 125 feet; thence west parallel with the south line of said NE 1/4, 149 feet; thence south parallel with the east line of said NE 1/4, 220 feet; thence west parallel with the south line of said NE 1/4, to a point 125 feet east of and at right angles to the east right-of-way line of the St. Louis, Fort Scott and Wichita Railroad now the Missouri Pacific Railroad as established at Deed Book 36, Page 124; thence southwesterly parallel with said east railroad right-of-way line to a point on the south line of said NE 1/4; thence east along the south line of said NE 1/4, to the place of beginning, **EXCEPT** the east 50 feet thereof for street; and **EXCEPT** all oil and gas rights and easements in favor of the estate of said oil and gas rights.

SCOPE OF WORK FOR CORRECTIVE MEASURES IMPLEMENTATION

Purpose

The purpose of the Corrective Measures Implementation (CMI) Scope of Work is to implement, operate, maintain and monitor the performance of the corrective measure selected by EPA for implementation at the Facility. In accomplishing the above purposes, the Respondent shall comply with the provisions of the corresponding Administrative Order on Consent (AOC) between the United States Environmental Protection Agency (EPA) and Abbott (Respondent), this SOW and relevant EPA guidance.

Scope:

In EPA's February 26, 2002 remedy selection letter, EPA informed the Respondent that the corrective measure selected for the facility was monitored natural attenuation. This remedy shall be implemented until the Corrective Action Objectives (CAOs), which will be defined in the EPA-approved CMI Work Plan, are met. The Corrective Action Objective will be protective of human health and the environment by preventing exposure of potential receptors to o-toluidine in groundwater at levels above 0.28 ug/L (U.S. EPA Region 9 Preliminary Remediation Goal for Tap Water).

In addition, the Respondent shall continue controls (maintenance of fencing, locked gate etc.) that prevent excavations or well installations in contaminated areas until the CAOs have been achieved as set forth in the CMI Workplan. Respondent shall propose Corrective Measure Completion Criteria to establish the means to determine when the CAOs have been achieved.

Respondent shall perform the tasks set forth below in designing and implementing the work required for the Site. The deliverables required are described in the following six tasks: a CMI Workplan, a Monitoring and Maintenance Plan, a Health and Safety Plan, a Community Relations Plan, a Corrective Measure Completion Report, and Annual Groundwater Monitoring Reports. The CMI Workplan, Monitoring and Maintenance Plan, the Health and Safety Plan, and the Community Relations Plan may be submitted as one deliverable provided that the document is submitted within sixty (60) days after the effective date of this Order. If the plans are submitted separately, they shall be submitted according to the following schedule.

WORK TO BE PERFORMED:

TASK 1: CORRECTIVE MEASURES IMPLEMENTATION WORKPLAN (CMIWP)

Within forty five (45) days after the effective date of this Order, Respondent shall submit a CMIWP for review and approval that shall include the following:

ATTACHMENT IV

- A. A Statement of Purpose that describes the purpose of the document and provides a summary description of the project.
- B. A Current System Report that describes the current and past interim corrective action activities at the facility.
- C. A historical System Performance Summary Report that summarizes the historical performance of the current and past interim corrective measures at the facility.
- D. Proposed Corrective Measure Completion Criteria: Respondent shall propose criteria for determining when the CAOs have been achieved along with the methods for measuring those criteria. In addition, the CMIWP shall propose standards for determining when, and what kind of maintenance of the monitoring system is required. Satisfaction of the completion criteria will trigger preparation and submittal of the Corrective Measures Completion Report.
- E. Establish the monitoring locations and depths (compliance points) that comprise the monitoring system. This shall include the rationale for selecting the monitoring locations and depths as well as the procedures for installing any new wells.
- F. Frequency of Monitoring: Respondent shall propose a schedule for system monitoring until satisfaction of the CAOs.
- G. A Sampling and Analysis Plan (SAP): Respondent shall propose a SAP that describes the sampling techniques and methodology in sufficient detail for EPA to determine whether such sampling conforms to the requirements of EPA Quality Assurance guidance.
- H. Schedule for Deliverables: Respondent shall propose a schedule for all projected major activities and deliverables required by the AOC and Tasks 2 through 7, below.

TASK 2: MONITORING AND MAINTENANCE PLAN (M&M)

Within fifteen (15) days after approval of the CMIWP, Respondent shall submit an M&M Plan to EPA for review and approval that shall outline procedures for long-term maintenance, and monitoring of the corrective measure system. The M&M plan shall, at a minimum, include the following elements and satisfy the following requirements:

- A. A Statement of Purpose that describes the purpose of the document and provides a summary description of the project.

- B. Project Management: A description of the project management approach that includes levels of personnel authority and responsibility (including an organizational chart), lines of communication and the qualifications of key personnel who will operate and maintain the corrective measures (including contractor personnel).
- C. Equipment Description: A description of the equipment necessary for the remedy implementation. This portion shall be a stand-alone document which may be amended, as necessary, to reflect changes in the monitoring systems without requiring modification of the M&M Plan, the CMI Workplan or the Order.
- D. Personnel Training: A description of the training necessary for personnel involved in carrying out the monitoring and system maintenance;
- E. Monitoring and Maintenance Procedures: A description of monitoring and maintenance procedures that includes:
1. A description of tasks for monitoring;
 2. A description of tasks for maintenance;
 3. A description of criteria that trigger maintenance;
 4. A schedule showing the frequency of each M&M task.
- F. Replacement criteria for wells designated as part of the monitoring system should they become unreliable for providing representative ground water samples;
- G. Waste Management Practices: A description of the wastes anticipated to be generated by operation of the corrective measure and how such wastes will be managed, treated, and disposed including a discussion of all applicable permits (local, state and federal) required to operate the system.
- H. Access: A description of what property must be accessed (both on the facility and off-site properties) for Respondent to implement, operate and monitor the corrective measure and how Respondent will ensure long term access to such property by Respondent and EPA;
- I. Sampling and Analysis: Sampling and performance monitoring activities will be needed for effective operation, assessment, and maintenance of the corrective measure. To ensure that all information, data and resulting decisions are technically sound, statistically valid, and properly documented, Respondent shall prepare a Quality Assurance Project Plan (QAPP) to document all monitoring procedures, sampling, field measurements and sample analyses performed during

these activities. Respondent shall use quality assurance, quality control, and chain-of-custody procedures approved by EPA. These procedures are described in the Draft Final EPA Requirements for Quality Assurance Project Plans for Environmental Data Operations (EPA QA/R-5), July 1993.

J. M&M Contingency Procedures:

1. Procedures to address system operational problems;
2. The M&M Plan shall specify that, in the event of a component failure (well occlusion, well damage etc.) major breakdown and/or the failure of the corrective measure (plume migration beyond agreed to limits etc.). Respondent shall orally notify EPA within 24 hours of their discovery of the situation and will notify EPA in writing within 72 hours of the event. Written notification must, at a minimum, specify what breakdown occurred, what response action is being taken and/or is planned, and any potential impacts on human health and/or the environment; and
3. Procedures to be implemented in the event that the corrective measure is experiencing major operational problems, is not performing to design specifications and/or will not achieve the cleanup goals in the expected time frame.
4. Criteria to determine whether expansion of the corrective measure systems are necessary to achieve the CAOs. Such criteria should evaluate all monitoring data generated by the corrective measure.
5. If contingencies such as operation problems or new information (such as monitoring data) require modification of the corrective measure in a substantive fashion which also requires physical alteration of installed monitoring equipment, a Construction Workplan shall be submitted to EPA for review and approval within thirty (30) days of receipt of a written request for the submittal from EPA. The Construction Workplan shall address the following areas:
 - a. Introduction/Purpose: Describe the purpose of the document and provide a summary description of the project.
 - b. Project Management: Describe the construction management approach including levels of personnel authority and responsibility (including an organization chart), lines of communication and the

qualifications of key personnel who will direct the corrective measure construction effort and provide construction quality assurance/quality control (including contractor personnel).

- c. Project Schedule: The project schedule must include timing for key elements of the bidding process, timing for initiation and completion of all major corrective measure construction tasks, and specify when the Construction Completion Report is to be submitted to EPA.
- d. Construction Quality Assurance/Quality Control Programs: The purpose of construction quality assurance is to ensure, with a reasonable degree of certainty, that a completed corrective measure will meet or exceed all design criteria, plans, and specifications. The Construction Workplan must include a complete Construction Quality Assurance Program to be implemented by Respondent.
- e. Waste Management Procedures: Describe the wastes generated by construction of the corrective measure and how they will be managed.
- f. Changes to the systems design and/or specifications may be needed during construction to address unforeseen problems encountered in the field and or new information (including monitoring data). Procedures to address such circumstances, including notification of EPA, must be included in the Construction Workplan.
- g. (i) The Construction Workplan must specify that, in the event of a construction emergency (e.g., fire, earthwork failure, etc.), Respondent shall orally notify EPA within 24 hours of the event and will notify EPA in writing within 72 hours of the event. The written notification must, at a minimum, specify what happened,

what response action is being taken and/or is planned, and any potential impacts on human health and/or the environment; and

- (ii) Construction Safety Procedures: Construction safety procedures should be specified in a separate Health and Safety Plan for Construction. If the activities proposed do not require a separate Health & Safety Plan, a document stating this may be submitted in its place.

6. Within thirty (30) days after completion of the activities directed by the approved Construction Workplan, Respondent shall submit a Construction Completion Report which shall consist of the following:
- a. A Statement of Purpose that describes what contingencies required the Construction Workplan and the how the corrective measure will address the contingencies;
 - b. A synopsis of the corrective measure as implemented, design criteria, and a certification that the corrective measure was constructed in accordance with the Construction Workplan;
 - c. An explanation and description of any modifications to the Construction Workplan and why these were necessary for the project;
 - d. A summary of the results of any operational testing and/or monitoring, indicating how initial operation of the corrective measure compares to the design criteria;
 - e. A summary of significant activities that occurred during construction. Include a discussion of problems encountered and how they were addressed;
 - f. A summary of any inspection findings (including copies of key inspection documents in appendices);
 - g. As built drawings or photographs; and
 - h. A proposed schedule indicating when any treatment systems will begin full scale operations.

7. Documentation Requirements

The Construction Workplan shall describe how analytical data and results will be evaluated, documented, and managed.

- K. Data Management and Documentation Requirements: The M&M Plan shall specify that Respondent collect and maintain the following information as well as including it in the progress reports required by Task 6:

1. Progress Report Information
2. Monitoring and laboratory data;
3. Records of operating costs; and
4. Personnel, maintenance and inspection records.

This data and information should be used to prepare Progress Reports and the Corrective Measure Completion Report.

TASK 3: HEALTH & SAFETY PLAN (HSP)

No later than ninety (60) days after the effective date of this Order, Respondent shall submit to EPA a Health and Safety Plan (HSP) for all field activity. The HSP may be submitted with other required submittals or developed as a stand alone document. EPA will acknowledge receipt of the HSP. The HSP shall, at a minimum, include the following elements and satisfy the following requirements:

- A. A Statement of Purpose that describes the goals and objectives of the health and safety program (must apply to on-site personnel and visitors). The HSP must be consistent with the Facility Contingency Plan, Occupational Safety and Health Administration (OSHA) Regulations, NIOSH Guidance Manual for Hazardous Waste Site Activities (1985), all state and local regulations and applicable EPA guidance.
- B. A Hazard Assessment: A listing and description of all potentially hazardous substances that could be encountered by field personnel during construction and/or monitoring and maintenance activities that also discusses the following:
 - Inhalation Hazards
 - Dermal Exposure
 - Ingestion Hazards
 - Physical Hazards
 - Overall Hazard Rating

The Hazard Assessment shall include a table that, at a minimum, lists: known contaminants, highest observed concentration, media, symptoms/effects of acute exposure.

- C. Personal Protection/Monitoring Equipment
 1. A description of personal protection levels and identification of all monitoring equipment for each operational task.

2. A description of any action levels (i.e., when will levels of safety be upgraded) and corresponding response actions.
 3. A description of decontamination procedures and areas.
- D. Site Organization and Emergency Contacts
1. A list that identifies all emergency contacts (including phone numbers). Identify the nearest hospital and provide a regional map showing the shortest route from the Facility to the hospital. Describe site emergency procedures and any site safety organizations. Include evacuation procedures for neighboring properties (where applicable).
 2. A facility map showing emergency station locations (first aid, eye wash areas, etc.).

TASK 4: COMMUNITY RELATIONS PLAN

No later than ninety (90) days after the effective date of this Order, Respondent shall submit a Community Relations Plan (CRP) to EPA for review and approval. The CRP may be submitted as a component part of another required submittal or as a stand alone document. The CRP shall, at a minimum, include the following elements and satisfy the following requirements:

- A. If requested by the public, Respondent must conduct an open house or informal meeting (i.e., availability session) in a public location where people can talk to representatives of EPA, Kansas Department of Health and the Environment (KDHE) and Respondent on a one-to-one basis;
- B. A model fact sheet that summarizes current or proposed corrective action activities. The CRP shall require the preparation and distribution of such a fact sheets after review by EPA and KDHE;
- C. A plan of how to communicate effectively with people who have vested interest in the corrective action activities;
- D. A proposal for how to maintain an easily accessible repository (such as a public library or the Facility itself, in some limited circumstances) of information on the corrective measure being implemented at the Facility action program, including the order or permit, approved workplans, and/or other reports; and

- E. A schedule for community relations activities (meetings, distribution of fact sheets, establishment of repository).

TASK 5: CORRECTIVE MEASURE COMPLETION REPORT

Within forty-five (45) days after Respondent receives information demonstrating that the CMOs have been met, Respondent shall submit a Corrective Measure Completion Report (CMC Report) for EPA review and approval. The purpose of the CMC Report is to fully document how the corrective measure completion criteria have been satisfied and to justify why the corrective measure and/or monitoring may cease. The CMC Report shall, at a minimum, include the following elements and satisfy the following requirements:

- A. A Statement of Purpose for the Report;
- B. A Synopsis of the implementation of the corrective measure;
- C. An evaluation of Corrective Measure Completion Criteria and the data that demonstrates that the completion criteria have been met. This evaluation shall include the results of testing and/or monitoring, indicating how operation of the corrective measure compares to the completion criteria, as approved by EPA in the M&M plan;
- D. A summary of significant activities that occurred during operations. Include a discussion of problems encountered and how they were addressed;
- E. Should EPA or KDHE conduct inspections of the monitoring system or other controls, the CMC Report shall include summaries of inspection findings (including copies of key inspection documents in appendices); and
- F. A Summary of total monitoring and maintenance costs.

TASK 6: PROGRESS REPORTS

Beginning with the first full month following the effective date of this Order, and until the schedule in the CMIWP is approved, Respondent shall provide EPA with quarterly progress reports. Once the CMIWP is approved, Respondent shall provide EPA with progress reports According to the schedule provided therein. These reports shall provide the information specified in Paragraph 71 of the AOC.

TASK 7: ANNUAL GROUNDWATER MONITORING REPORT

On or before March 1 of every year until released from this Order, Respondent s hall submit an Annual Groundwater Monitoring Report to EPA for review and approval. This Report shll contain a summary of well maintenance performed during the reporting period and all analytical data, from the commencement of this remedy, reported in a tabular form that facilitates idetifying data trends.